

a routing means communicatively connected to said network, telephone and computer interface means for managing the addressing of data between said network and said telephone and said computer;

wherein said routing means assigns internal network addresses to said telephone and said computer, respectively, and selectively routes voice and data signals from said telephone and said computer, respectively, to and from said telecommunications network via said subscriber line and based on said assigned internal network addresses.

2. Apparatus of claim 1, further comprising:

a gateway means for packetizing voice signals received from said telephone interface and depacketizing voice signals from said routing means, packetized signals being routed by said routing means for transmission to said telecommunications network and depacketized voice signals being routed to said telephone interface for establishing a telephone conversation between a caller using said telephone and an other caller connected to said telecommunications network via another telephone.

3. Apparatus of claim 1, wherein said routing means includes an address conversion and translation means for translating the respective internal network addresses of said telephone and computer to correspond with an external network address of said subscriber line assigned to communicate with said telecommunications network.

4. Apparatus of claim 1, further comprising:

a packet prioritization module for setting respective priorities for voice and data signals.

5. Apparatus of claim 4, wherein said packet prioritization module further prioritizes voice signals over data signals so that voice signals take precedent over data signals when both voice and data signals are being communicated between said apparatus and said telecommunications network using said subscriber line.

6. Apparatus of claim 1, wherein said routing means apportions the bandwidth of said subscriber line for selectively routing the voice signals and data signals between said telephone and computer, respectively, and said telecommunications network.

7. Apparatus of claim 24, wherein said voice circuit comprises:

an analog to digital converter for converting voice signals from said telephone into digital signals for routing to a gateway that packetizes said digital signals;

a digital to analog converter for converting digital signals depacketized by said gateway into voice signals to be routed to said telephone;

a ring generator for ringing said telephone when a voice signal is received at said gateway;

a dual tone multi-frequency (DTMF) generator for generating an address whereto a voice signal from said telephone is to be routed; and

a dial tone generator for generating a dial tone for said telephone when said telephone is taken off hook.

8. Apparatus of claim 1, further comprising:

a dual tone multi-frequency (DTMF) generator;

a call forward management module working cooperatively with said network interface means for forwarding a call to either said telephone or said computer; and

a message waiting light for informing a user that a voice call has been received and forwarded by said call forward management module to said telephone.

9. A communications controller to be used at a site to connect to a telecommunications network, said site including at least one telephone and one computer both adaptable to be accessible to said telecommunications network, said communications controller comprising:

a network interface means for effecting a connection with said telecommunications network via a subscriber line;

a telephone interface means for establishing a connection with said telephone;

a computer interface means for establishing a connection with said computer; and

a routing means communicatively connected to said network, telephone and computer interface means for assigning internal network addresses to said telephone and said computer, respectively, and for selectively routing voice signals and data signals between said telephone and computer, respectively, and said telecommunications network so that both voice and data signals are communicated between said site and said telecommunications network using said subscriber line and based on said internal network addresses.

10. Communications controller of claim 9, wherein said routing means includes an address conversion and translation means for assigning said internal network addresses for said telephone and computer, and correlating said internal network addresses with an external network address of said subscriber line assigned by said telecommunications network; and

wherein said routing means selectively routes the voice and data signals between said telephone and computer, respectively, and said telecommunications network by establishing respective connections between said external network address of said subscriber line and said internal network addresses of said telephone and said computer so that both voice and data signals can be exchanged between said telephone and said computer connected to said communications controller and devices communicatively connected to said telecommunications network.

11. Communications controller of claim 9, further comprising:

a voice circuit communicatively connected to said telephone and said routing means for receiving and converting digital voice signals routed from said routing means into analog voice signals for said telephone, and converting and feeding analog voice signals input from said telephone into digital voice signals for said routing means.

12. Communications controller of claim 9, wherein said voice circuit comprises:

an analog to digital converter for converting voice signals from said telephone into digital signals for routing to a gateway that packetizes said digital signals;

a digital to analog converter for converting digital signals depacketized by said gateway into voice signals to be routed to said telephone;

a ring generator for ringing said telephone when a voice signal is received at said gateway;

a dual tone multi-frequency (DTMF) generator; and

a dial tone generator for generating dial tone for said telephone when said telephone is taken off hook.

13. Communications controller of claim 9, further comprising:

a gateway means for packetizing voice signals received from said telephone interface means and depacketizing voice signals received from said routing means, packetized voice signals being routed by said routing means for transmission to said telecommunications network and depacketized voice signals being routed to said telephone interface means for establishing a telephone connection between a caller using said telephone and an other caller connected to said telecommunications network via another telephone.

14. Communications controller of claim 9, wherein said routing means includes an address conversion and translation means for translating the respective internal network addresses of said telephone and computer to correspond with an external network address of said subscriber line assigned to communicate with said telecommunications network.

15. Communications controller of claim 9, wherein said routing means apportions the bandwidth of said subscriber line for selectively routing the voice signals and data signals between said telephone and computer, respectively, and said telecommunications network.

16. Communications controller of claim 13, further comprising:

a packet prioritization module for setting respective priorities for voice and data signals, said packet prioritization module prioritizing voice signals over data signals so that voice signals take precedent over data signals when both voice and data signals are being communicated between said site and said telecommunications network using said subscriber line.

17. A method of utilizing a subscriber line at a site to provide voice and data communication with a telecommunications network, comprising the steps of:

connecting a network interface to said subscriber line for effecting a connection with said telecommunications network;

connecting a telephone to a telephone interface for establishing a connection with said telephone;

connecting a computer to a computer interface for establishing a connection with said computer; and

communicatively connecting a router to said network, telephone and computer interfaces for assigning internal network addresses to said telephone and said computer, respectively, and for selectively routing voice signals and data signals between said telephone and computer, respectively, and said telecommunications network so that both voice and data signals are communicated between said site and said telecommunications network using said subscriber line and based on said assigned internal network addresses.

18. Method of claim 17, wherein said router apportions the bandwidth of said subscriber line for selectively routing the voice signals and data signals between said telephone and computer, respectively, and said telecommunications network.

19. Method of claim 17, wherein said communicatively connecting step further comprises the step of:

prioritizing voice signals over data signals so that voice signals take precedent over data signals when both voice and data signals are being communicated between said site and said telecommunications network using said subscriber line.

20. Method of claim 17, further comprising the steps of:

correlating said internal network addresses with an external network address of said subscriber line assigned by said telecommunications network; and

establishing respective connections between said external network address of said subscriber line and said internal network addresses of said telephone and computer for selectively routing the voice and data signals between said telephone and computer, respectively, and said telecommunications network to thereby exchange both voice and data signals between said telephone and said computer and devices communicatively connected to said telecommunications network.

21. Method of claim 17, further comprising the step of:

communicatively connecting a voice circuit to said telephone and said router for receiving and converting digital voice signals routed from said router into analog voice signals for said telephone, and converting and forwarding analog voice signals output from said telephone into digital voice signals for said router.

22. Method of claim 17, further comprising the steps of:

converting analog voice signals from said telephone into digital voice signals for routing to a gateway that packetizes said digital voice signals;

converting digital voice signals depacketized by said gateway to analog voice signals to be routed to said telephone;

ringing said telephone when a voice signal is received at said gateway; and

generating a dial tone for said telephone when said telephone is taken off hook.

23. Method of claim 17, further comprising the step of:

packetizing voice signals received from said telephone interface and depacketizing voice signals from said router, packetized signals being routed by said router for transmission to said telecommunications network and depacketized voice signals being routed to said telephone interface for establishing a telephone connection between a caller using said telephone and another caller connected to said telecommunications network via another telephone.

24. Apparatus of claim 1, further comprising:

a voice circuit for receiving and converting data routed from said routing means to said telephone, and for converting and feeding voice signals input from said telephone to said routing means.

25. A communications device configured to communicate with a communications network over a subscriber line, comprising:

a plurality of interfaces respectively configured to communicate with a telephone, a computer, and the communications network over the subscriber line; and

logic configured to assign respective internal network addresses for the telephone and the computer, translate between the respective internal network addresses and an external network address assigned to the subscriber line, and route voice and data signals among the telephone and the computer and the communications network over the subscriber line and based on the assigned internal network addresses and the external network address assigned to the subscriber line.